

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In re Application of:

**GREGORY G. KUELBS**

Serial No. 10/650, 537

Filed: 28 AUGUST 2003

For: **UMBRELLA APPARATUS**

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Examiner: **SAWHNEY, HARGOBIND S.**

Art Unit: 2885

Confirmation No.: 9033

**APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is an appeal from the Office Action dated 15 December 2008, rejecting claims 76-92 in the present Application. A Notice of Appeal was filed on 13 March 2009. Accordingly, the due date for filing an Appeal Brief is 13 May 2009.

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| <b>CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)</b>   |
| Date of Transmission: 13 May 2009  |
| I hereby certify that this correspondence is being transmitted to the U.S. Patent and Trademark Office (USPTO) via the USPTO electronic filing system (EFS-Web) on the date shown above. |
| By: <u>/Brian E. Harris 48,383/</u><br>Brian E. Harris   |

Payment of the \$270.00 fee for filing a brief in support of an appeal is being made concurrently via EFS-Web with the filing of this Appeal Brief. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees which may be required, or credit any overpayments, to Deposit Account No. **502806**.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed. Any fee required for such Petition for Extension of Time and any other fee required by this document and not submitted herewith should be charged to Deposit Account No. **502806**. Any refund should be credited to Deposit Account No. **502806**.

**Real Party in Interest (37 C.F.R. § 41.37(c)(1)(i)):**

The real party in interest in the present Application is World Factory, Inc., as indicated by an Assignment recorded on 28 August 2003, from the inventor to World Factory, Inc., in the Assignment Records of the United States Patent and Trademark Office (the "PTO") at Reel 014456, Frame 0404.

**Related Appeals and Interferences (37 C.F.R. § 41.37(c)(1)(ii)):**

The present Application is a continuation of U.S. Application No. 10/068,424, filed 7 February 2002, titled "Umbrella Apparatus," which issued on 2 September 2003 as U.S. Patent No. 6,612,713 (the "'713 Patent").

The following judicial proceedings involved the '713 patent:

1. Civil Action No. 4:05-CV-00373, *World Factory, Inc. v. Southern Sales & Marketing Group, Inc.*, United States District Court for the Northern District of Texas, Fort Worth Division, was dismissed without prejudice on 9 January 2006.
2. Civil Action No. 4:05-CV-374-A, *World Factory, Inc. v. Bond Manufacturing Co.*, United States District Court for the Northern District of Texas, Fort Worth Division, was dismissed without prejudice on 21 November 2005.

The '713 patent is presently the subject of *inter partes* Reexamination Control No. 95/000,104, filed 12 August 2005.

Also, U.S. Application No. 11/199,956, filed 9 August 2005, titled "Umbrella Apparatus," (the "'956 Application") is a continuation of the present Application. A Notice of Appeal was filed in the '956 Application on 3 February 2009, and an appeal brief was filed in the '537 Application on 3 April 2009.

Appellant is unaware of any decisions rendered in any of the above-identified proceedings by a court or the Board of Patent Appeals and Interferences.

**Status of Claims (37 C.F.R. § 41.37(c)(1)(iii)):**

The present application is a continuation application and was originally filed on 28 August 2003 with 20 claims (*i.e.*, claims 1-20) and a concurrently-filed preliminary amendment, which cancelled claims 1-20 and added new claims 21-38. In an amendment filed on 27 October 2004, new claims 39-69 were added; in an amendment filed on 3 August 2006, claims 26-29, 31, 32, and 35-69 were cancelled and new claims 70-75 were added; in an amendment filed on 10 December 2007, claims 21-25, 30, 33, 34, and 70-75 were cancelled and new claims 76-92 were added. No claims have since been cancelled or added, and no claims stand withdrawn from consideration as the result of a requirement for restriction. Thus, claims 76-92 are presently under consideration in the appealed Application.

In a final office action dated 18 March 2008, the Examiner first and finally rejected claims 76-92. In a non-final office action dated 15 December 2008, the Examiner again rejected claims 76-92. Thus, claims 76-92 have twice been rejected.

The status of the claims is, therefore, believed to be as follows:

|                     |       |
|---------------------|-------|
| Allowed claims:     | None  |
| Claims objected to: | None  |
| Claims cancelled:   | 1-75  |
| Claims rejected:    | 76-92 |

Appellant hereby appeals the Examiner's rejection of the foregoing claims (76-92), which presently stand rejected over the cited references. Appealed claims 76-92 are set forth in a Claims Appendix, attached hereto, pursuant to 37 C.F.R. § 41.37(c)(1)(viii).

**Status of Amendments (37 C.F.R. § 41.37(c)(1)(iv)):**

The most recent final office action was mailed on 18 March 2008. In response, Appellant filed an Amendment and a Request for Continued Examination on 18 September 2008.

Subsequently, a non-final office action was mailed on 15 December 2008. The 15 December 2008 Office Action indicates that the 18 September 2008 Amendment was entered. The 15 December 2008 Office Action is the most recent office action. Appellant filed no amendments subsequent to the 15 December 2008 Office Action.

**Summary of Claimed Subject Matter (37 C.F.R. § 41.37(c)(1)(v)):**

The independent claims involved in the present appeal relate, in general, to a lawn or patio type of umbrella apparatus 11, 111, 211, or 701 having a lighting system that is powered by a rechargeable power supply.<sup>1</sup>

Independent claim 76 relates to an umbrella apparatus 11, 111, 211, or 701 comprising a pole portion 15, 115, 215, or 719 and an umbrella portion 13, 113, 213, or 717 hingedly coupled to the pole portion 15, 115, 215 or 719.<sup>2</sup> The umbrella apparatus 11, 111, 211, or 701 also comprises a solar energy system 35, 135, 235, or 727 coupled to the pole portion 15, 115, 215, or 719.<sup>3</sup> The umbrella apparatus 11, 111, 211, or 701 further comprises a rechargeable electrical power system 50, 150, or 250 and a lighting system 26, 126, 226, or 721 that is conductively coupled to the rechargeable electrical power system 50, 150, or 250.<sup>4</sup> The solar energy system 35, 135, 235, or 727 is adapted to collect solar energy and convert the solar energy into electrical energy, and is conductively coupled to the rechargeable electrical power system 50, 150, or 250 such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system 50, 150, 250.<sup>5</sup> The umbrella portion 13, 113, 213, or 727 has a plurality of radially extending rib members 301.<sup>6</sup> The lighting system 26, 126, 226, or 721 includes a plurality of light emitting diodes 307.<sup>7</sup> The light emitting diodes 307

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<sup>1</sup> Specification, p. 3, ll. 6-9, and Figures 1, 3A-3C, and 6.

<sup>2</sup> Specification, p. 7, ll. 3-11; p. 10, ll. 10-20; p. 13, l. 26 through p. 14, l. 6; p. 21, ll. 20-22 and 29-30; and Figures 1, 2A, 3A, and 6.

<sup>3</sup> Specification, p. 9, ll. 14-26; p. 12, ll. 4-17; p. 15, l. 22 through p. 16, l. 4; p. 21, ll. 23-29; and Figures 1, 2A, 3A, and 6.

<sup>4</sup> Specification, p. 8, l. 27 through p. 9, l. 5; p. 11, l. 24 through p. 12, l. 3; p. 15, ll. 11-15; p. 17, ll. 8-9; p. 22, ll. 7-11; and Figures 1, 2A, 3A, 4A, and 6.

<sup>5</sup> Specification, p. 9, ll. 14-26; p. 12, ll. 4-17; p. 15, l. 22 through p. 16, l. 4; p. 21, ll. 23-29; and Figures 1, 2A, 3A, and 6.

<sup>6</sup> Specification, p. 17, ll. 8-12; p. 17, l. 29 through p. 18, l. 1; p. 18, ll. 29-30; and Figures 4A and 6. Note that rib member 301 is indicative of rib members 19, 21, 23, 25, 119, 121, 123, 125, 219, 221, 223, 225 shown in Figures 1, 2A, and 3A.

<sup>7</sup> Specification, p. 17, ll. 8-12; p. 17, l. 29 through p. 18, l. 1; p. 18, ll. 29-30; p. 22, ll. 12-15; and Figures 4A and 6.

are recessed within the rib members 301.<sup>8</sup> Translucent materials 305 are disposed over the light emitting diodes 307 for enhancing the light from the light emitting diodes 307.<sup>9</sup>

Independent claim 76 relates to an umbrella apparatus 11, 111, 211, or 701 comprising a pole portion 15, 115, 215, or 719 coupled to a top cap 715.<sup>10</sup> A flexible canopy 17, 117, 217, or 717 is carried by rib members 19, 21, 23, 25, 119, 121, 123, 125, 219, 221, 223, or 225 that are hingedly coupled to the top cap 715.<sup>11</sup> The umbrella apparatus 11, 111, 211, or 701 also comprises at least one rechargeable battery 55a, 155a, or 255a that provides electrical power to the umbrella apparatus 11, 111, 211, or 701, wherein the at least one rechargeable battery is located below the flexible canopy 17, 117, 217, or 717.<sup>12</sup> The umbrella apparatus 11, 111, 211, or 701 also comprises a solar energy system 35, 135, 235, or 727 adapted to collect solar energy and convert the solar energy into electrical energy, where the solar energy system 35, 135, 235, or 727 is conductively coupled to the at least one rechargeable battery 55a, 155a, or 255a such that the solar energy collected and converted into electrical energy recharges the at least one rechargeable battery 55a, 155a, or 255a.<sup>13</sup> The solar energy system 35, 135, 235, or 727 is releasably coupled to the top cap 715, such that the flexible canopy 717 passes between the top cap 715 and the solar energy system 727, the flexible canopy 717 being adjacent to both the top cap 715 and the solar energy system 727.<sup>14</sup> The umbrella apparatus 11, 111, 211, or 701 also comprises a lighting system 26, 126, 226, or 721 carried by the rib members 19, 21, 23, 25, 119, 121, 123, 125, 219, 221, 223, or 225, the lighting system 26, 126, 226, or 721 having a plurality of light emitting diodes conductively coupled to the at least one rechargeable battery 55a, 155a, or 255a.<sup>15</sup>

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<sup>8</sup> Specification, p. 17, ll. 9-11; p. 21, ll. 22-23; p. 22, ll. 14-17; and Figures 4A and 6.

<sup>9</sup> Specification, p. 17, ll. 13-17; p. 21, ll. 22-23; p. 22, ll. 14-17; and Figures 4A and 6.

<sup>10</sup> Specification, p. 7, ll. 3-8; p. 10, ll. 10-16; p. 13, l. 26 through p. 14, l. 2; p. 21, ll. 29-30; and Figures 1, 2A, 3A, and 6.

<sup>11</sup> Specification, p. 7, ll. 10-11; p. 10, ll. 18-20; p. 14, l. 4-6; p. 21, ll. 29-30; and Figures 1, 2A, 3A, and 6.

<sup>12</sup> Specification, p. 8, l. 27 – p. 9, l. 9; p. 11, l. 24 – p. 12, l. 3; p. 15, ll. 11-15; and Figures 1, 2A, and 3A.

<sup>13</sup> Specification, p. 9, ll. 14-26; p. 12, ll. 4-17; p. 15, l. 22 through p. 16, l. 4; p. 21, ll. 23-29; and Figures 1, 2A, 3A, and 6.

<sup>14</sup> Specification, p. 21, ll. 23-30; and Figures 1, 2A, 3A, and 6.

<sup>15</sup> Specification, p. 8, l. 27 through p. 9, l. 5; p. 11, l. 24 through p. 12, l. 3; p. 15, ll. 11-15; p. 17, ll. 8-9; p. 22, ll. 7-11; and Figures 1, 2A, 3A, 4A, and 6.



**Grounds of Rejection to be Reviewed on Appeal (37 C.F.R. § 41.37(c)(1)(vi)):**

**Issue 1:** Claims 76-81 and 83 stand rejected under 35 USC § 103(a) over U.S. Patent No. 2,960,094 to Small ("Small '094") in view of U.S. Patent No. 5,954,417 to Mai ("Mai"). Thus, the first issue is whether the teachings of Small '094 and Mai disclose or suggest all of the limitations of claims 76-81 and 83 as necessary for establishing a *prima facie* case of obviousness.

**Issue 2:** Claim 82 stands rejected under 35 USC § 103(a) over Small '094 in view of Mai, and further in view of U.S. Patent No. 5,954,417 to Small ("Small '417"). Thus, the second issue is whether the teachings of Small '094, Mai, and Small '417 disclose or suggest all of the limitations of claim 82 as necessary for establishing a *prima facie* case of obviousness.

**Issue 3:** Claim 84 stands rejected under 35 USC § 103(a) over Small '094 in view of Mai, and further in view of U.S. Patent No. 5,584,564 to Phyle ("Phyle"). Thus, the third issue is whether the teachings of Small '094, Mai, and Phyle disclose or suggest all of the limitations of claim 84 as necessary for establishing a *prima facie* case of obviousness.

**Issue 4:** Claim 85 stands rejected under 35 USC § 103(a) over Small '094 in view of Mai, further in view of Phyle, and further in view of International Publication No. WO 93/00840 to Perrier *et al.* ("Perrier"). Thus, the fourth issue is whether the teachings of Small '094, Mai, Phyle, and Perrier disclose or suggest all of the limitations of claim 85 as necessary for establishing a *prima facie* case of obviousness.

**Issue 5:** Claims 86-89 stand rejected under 35 USC § 103(a) over Japanese Patent No. JP 09168415 A2 to Oshio *et al.* ("Oshio") in view of Small '094. Thus, the fifth issue is whether the teachings of Oshio and Small '094 disclose or suggest all of the limitations of claims 86-89 as necessary for establishing a *prima facie* case of obviousness.

**Issue 6:** Claims 90-92 stand rejected under 35 USC § 103(a) over Oshio in view of Small '094, further in view of U.S. Patent No. 6,058,951 to Wilson ("Wilson") and U.S. Patent No. 5,373,287 to Doublet ("Doublet"). Thus, the sixth issue is whether the teachings of Oshio,

Small '094, Wilson, and Doublet disclose or suggest all of the limitations of claims 90-92 as necessary for establishing a *prima facie* case of obviousness.

**Argument (37 C.F.R. § 41.37(c)(1)(vii)):**

**I. Issue No. 1 –**

**Rejection Under 35 USC § 103(a) Over Small '094 and Mai:**

Claims 76-81 stand rejected under 35 USC § 103(a) over Small '094 in view of Mai. Appellant respectfully asserts that the rejection is improper and should be reversed for the reasons set forth below.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.<sup>16</sup> Moreover, all the claim limitations must be taught or suggested by the prior art.<sup>17</sup> If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious.<sup>18</sup>

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.<sup>19</sup> In fact, the absence of a suggestion to combine is dispositive in an obviousness determination.<sup>20</sup> The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination.<sup>21</sup> The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the

<sup>16</sup> *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142 (emphasis added).

<sup>17</sup> *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974).

<sup>18</sup> *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

<sup>19</sup> *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986).

<sup>20</sup> *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997).

<sup>21</sup> *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01.

prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in Appellant's disclosure.<sup>22</sup>

A recent Federal Circuit case makes it clear that, in an obviousness situation, the prior art must disclose *each and every element of the claimed invention*, and that any motivation to combine or modify the prior art must be based upon a suggestion *in* the prior art.<sup>23</sup> Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness.<sup>24</sup>

### **Claims 76-81 and 83**

- **The proposed combination of Small '094 and Mai fails to teach an umbrella comprising a lighting system having a plurality of light emitting diodes recessed within rib members of the umbrella**

Independent claim 76 is directed to an umbrella apparatus comprising an umbrella portion hingedly coupled to a pole portion, where the umbrella portion has a plurality of radially extending rib members. Claim 76 further requires a rechargeable electrical power system conductively coupled to a lighting system. Claim 76 requires that the lighting system have a plurality of light emitting diodes conductively coupled to the rechargeable electrical power system. More specifically, claim 76 requires that the light emitting diodes be recessed within the rib members. An example of light emitting diodes recessed within a rib member is shown in Figure 4A of the Specification.

The Office concedes that Small '094 fails to teach an umbrella apparatus comprising a lighting system that includes a plurality of light emitting diodes conductively coupled to a rechargeable power system that is included in the umbrella apparatus.<sup>25</sup> In fact, Small '094 is completely silent with regard to a lighting system. While Small '094 does disclose an umbrella having "a conventional collapsible top 11," Small '094 is silent

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<sup>22</sup> *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

<sup>23</sup> *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

<sup>24</sup> *Id.* at 1434-35.

<sup>25</sup> Office Action of 15 December 2008, Detailed Action, p. 3, ll. 8-11.

with regard to having anything recessed within such ribs.<sup>26</sup> Thus, Small '094 clearly fails to teach the more specific limitation of a lighting system that includes light emitting diodes recesses within a rib member. It should also be noted that the Examiner recites ribs 11' in connection with Small '094; however, Small '094 does not recite ribs 11'.

Since, as the Office concedes, Small '094 fails to teach an umbrella apparatus that includes the claimed lighting system, the Office further relies upon alleged teachings of Mai in combination with the teachings of Small '094 in rejecting claim 76.

Specifically, the Office alleges that Mai discloses an umbrella apparatus comprising a lighting system including light emitting diodes conductively coupled to a rechargeable system where the light emitting diodes are recessed within a rib portion. In support of this allegation, the Office specifically cites Mai, Figure 5, and column 4, lines 11-19. However, the cited portion of Mai directly contradicts this allegation by disclosing light emitting diodes that are installed *along*, rather than recessed within, the rib members of the umbrella:

The difference between this third embodiment and the above first and second embodiments is that the plurality of **LEDs 83" are respectively and intervally installed along the ribs 20"** on the umbrella cover 3". There are a plurality of transparent strips 84" respectively attached along the connecting edges of the gores 30" to sealedly cover the LEDs 83" and the electrical wires 831" connected between the LEDs 83".<sup>27</sup>

Thus, Mai clearly teaches away from the claimed invention by teaching the installation of LEDS along the ribs rather than recessed within the ribs as claimed. Further, the Office incorrectly refers to the transparent strips 84" in the above passage as "transparent rib portion 84"," and goes on to allege that the transparent strips 84" are "integral with the ribs."<sup>28</sup> However, there is no basis for alleging that the transparent strips 84" are "integral with the ribs 20"." As shown in Figure 5, the transparent strips 84" are not even adjacent to the ribs 20", as they are separated from the ribs 20" by the

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<sup>26</sup> Small '094, col. 1, ll. 47-50; and Figure 1.

<sup>27</sup> Mai, col. 4, ll. 12-19, emphasis added.

<sup>28</sup> Office Action of 15 December 2008, Detailed Action, p. 3, ll. 16-19.

connecting edges of gores 30" (that is, the transparent strips 84" are on top of the umbrella, while the ribs 20" are underneath).<sup>29</sup> Absent improper hindsight reasoning based on the Appellant's Specification, there is no basis for concluding that Mai discloses or suggests an umbrella apparatus where light emitting diodes are recessed within rib members of an umbrella as recited by claim 76.

Thus, whether taken singly or in combination, Small '094 and Mai fail to teach or suggest an umbrella apparatus comprising a lighting system that includes a plurality of light emitting diodes that are recessed within rib members as recited by claim 76. Accordingly, the proposed combination of Small '094 and Mai cannot render claim 76 obvious.

Since claims 77-81 and 83 depend from claim 76, the arguments presented above in connection with claim 76 apply equally to claims 77-81 and 83.

For at least the reasons presented above, it is respectfully requested that the rejection of claims 76-81 and 83 under 35 USC § 103(a) be reversed.

## **II. Issue No. 2 –**

### **Rejection Under 35 USC § 103(a) Over Small '094, Mai, and Small '466:**

Claim 82 stands rejected under 35 USC § 103(a) over Small '094 and Mai, further in view of Small '466. Appellant respectfully asserts that the rejection is improper and should be reversed for the reasons set forth below.

### **Claim 82**

Dependent claim 82 is directed to an umbrella apparatus as recited by independent claim 76, which recites an umbrella apparatus comprising a lighting system that includes a plurality of light emitting diodes that are recessed within rib members as discussed above.

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<sup>29</sup> Mai, col. 4, ll. 15-17.

Since claim 82 depends from claim 76, the arguments presented above in connection with claim 76 apply equally to claim 82. While the Office further relies upon Small '466 in combination with Small '094 and Mai, Small '466 clearly fails to a lighting system including light emitting diodes recessed within the ribs of an umbrella. Therefore, Small '466 fails to cure the deficiencies of Small '094 and Mai discussed above in connection with claim 76. Thus, the proposed combination of Small '094, Mai, and Small '466 cannot render obvious independent claim 76 or dependent claim 82.

For at least the reasons presented above, it is respectfully requested that the rejection of claim 82 under 35 USC § 103(a) be reversed.

### **III. Issue No. 3 –**

#### **Rejection Under 35 USC § 103(a) Over Small '094, Mai, and Phyle:**

Claim 84 stands rejected under 35 USC § 103(a) over Small '094 and Mai, further in view of Phyle. Appellant respectfully asserts that the rejection is improper and should be reversed for the reasons set forth below.

#### **Claim 84**

Dependent claim 84 is directed to an umbrella apparatus as recited by independent claim 76, which recites an umbrella apparatus comprising a lighting system that includes a plurality of light emitting diodes that are recessed within rib members as discussed above.

Since claim 84 depends from claim 76, the arguments presented above in connection with claim 76 apply equally to claim 84. While the Office further relies upon Phyle in combination with Small '094 and Mai, Phyle clearly fails to a lighting system including light emitting diodes recessed within the ribs of an umbrella. Therefore, Phyle fails to cure the deficiencies of Small '094 and Mai discussed above in connection with claim 76. Thus, the proposed combination of Small '094, Mai, and Phyle cannot render obvious independent claim 76 or dependent claim 84.

For at least the reasons presented above, it is respectfully requested that the rejection of claim 84 under 35 USC § 103(a) be reversed.

**IV. Issue No. 4 –**

**Rejection Under 35 USC § 103(a) Over Small '094, Mai, Phyle, and Perrier:**

Claim 85 stands rejected under 35 USC § 103(a) over Small '094 and Mai, further in view of Phyle, and still further in view of Perrier. Appellant respectfully asserts that the rejection is improper and should be reversed for the reasons set forth below.

**Claim 85**

Dependent claim 85 is directed to an umbrella apparatus as recited by independent claim 76, which recites an umbrella apparatus comprising a lighting system that includes a plurality of light emitting diodes that are recessed within rib members as discussed above.

Since claim 85 depends from dependent claim 84, which depends from independent claim 76, the arguments presented above in connection with claims 76 and 84 apply equally to claim 85. While the Office further relies upon Perrier in combination with Small '094, Mai, and Phyle, Perrier clearly fails to a lighting system including light emitting diodes recessed within the ribs of an umbrella. Therefore, Perrier fails to cure the deficiencies of Small '094, Mai, and Phyle discussed above in connection with claims 76 and 84. Thus, the proposed combination of Small '094, Mai, Phyle, and Perrier cannot render obvious independent claim 76 or dependent claims 84 and 85.

For at least the reasons presented above, it is respectfully requested that the rejection of claim 85 under 35 USC § 103(a) be reversed.



V. Issue No. 5 –

**Rejection Under 35 USC § 103(a) Over Oshio and Small '094:**

Claims 86-89 stand rejected under 35 USC § 103(a) over Oshio in view of Small '094. Appellant respectfully asserts that the rejection is improper and should be reversed for the reasons set forth below.

**Claims 86-89**

- **The proposed combination of Oshio and Small '094 fails to teach an umbrella comprising a solar energy system releasably coupled to a top cap and a flexible canopy between and adjacent to both the top cap and the solar energy system**

Independent claim 86 is directed to an umbrella apparatus comprising a pole portion, a top cap coupled to the pole portion, rib members hingedly coupled to the top cap, a flexible canopy carried by the rib members, a rechargeable battery located below the canopy, a solar energy system for recharging the battery, and a lighting system carried by the rib members.

More specifically, claim 86 requires that the solar energy system be releasably coupled to the top cap. Also, claim 86 requires that the canopy be adjacent to both the top cap and the solar energy system and that the canopy pass between the top cap and the solar energy system.

The Office concedes that Oshio fails to teach an umbrella apparatus comprising a rechargeable power system.<sup>30</sup> In fact, Oshio is completely silent with regard to a solar energy system. Thus, Oshio clearly fails to teach an umbrella apparatus comprising a solar energy system that is releasably coupled to the top cap. Oshio also clearly fails to teach an umbrella apparatus comprising a canopy that passes between a solar energy system and a top cap, where the canopy is adjacent to both the top cap and the solar energy system.

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<sup>30</sup> Office Action of 15 December 2008, Detailed Action, p. 10, ll. 3-4.

Since, Oshio fails to teach an umbrella apparatus according to claim 86, the Office further relies upon alleged teachings of Small '094 in combination with the teachings of Oshio in rejecting claim 86.

Small '094 discloses an umbrella apparatus comprising a solar battery 34 supported on the upper end of a post 10.<sup>31</sup> However, Small '094 is silent with respect to the solar battery 34 being releasably coupled to the post 10. Also, Small '094 fails to disclose a top cap that is hingedly coupled to rib members where a canopy is adjacent to, and passes between, the top cap and the solar battery 34.

Thus, whether taken singly or in combination, Oshio and Small '094 fail to teach or suggest an umbrella apparatus comprising a solar energy system that is releasably coupled to a top cap, and further fail to teach or suggest a solar energy system, top cap, and canopy where the canopy is adjacent to both the top cap and the solar energy system and passes between the top cap and the solar energy system as recited by claim 86. Accordingly, the proposed combination of Oshio and Small '094 cannot render claim 86 obvious.

Since claims 87-89 depend from claim 86, the arguments presented above in connection with claim 86 apply equally to claims 87-89.

For at least the reasons presented above, it is respectfully requested that the rejection of claims 86-89 under 35 USC § 103(a) be reversed.

**VI. Issue No. 6 –**

**Rejection Under 35 USC § 103(a) Over Oshio, Small '094, Wilson, and Doublet:**

Claims 90-92 stand rejected under 35 USC § 103(a) over Oshio and Small '094, further in view of Wilson and Doublet. Appellant respectfully asserts that the rejection is improper and should be reversed for the reasons set forth below.

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<sup>31</sup> Small '094, col. 2, ll. 29-30.

### **Claims 90-92**

Dependent claims 90-92 are directed to an umbrella apparatus as recited by independent claim 86. As discussed above, claim 86 requires a solar energy system that is releasably coupled to a top cap. Also, claim 86 requires a canopy that is adjacent to both the top cap and the solar energy system and that passes between the top cap and the solar energy system.

Since claims 90-92 depend from dependent claim 86, the arguments presented above in connection with claims 86 apply equally to claims 90-92. The Office further relies upon Wilson and Doublet in combination with Oshio and Small '094. However, both Wilson and Doublet are silent with regard to an umbrella comprising a solar energy system; in fact, Doublet is not even directed to an umbrella system. Thus, Wilson and Doublet fail to cure the deficiencies of Oshio and Small '094 discussed above in connection with claim 86. Thus, the proposed combination of Oshio, Small '094, Wilson, and Doublet cannot render obvious independent claim 86 or dependent claims 90-92.

For at least the reasons presented above, it is respectfully requested that the rejection of claims 90-92 under 35 USC § 103(a) be reversed.

**CONCLUSION:**

In view of the foregoing, Appellant respectfully requests the Board of Patent Appeals and Interferences to reverse the Examiner's rejections as to all of the appealed claims.

Respectfully submitted,

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**ATTORNEY AND AGENTS FOR APPELLANT**

**Claims Appendix**  
**(37 C.F.R. § 41.37(c)(1)(viii))**

76. An umbrella apparatus comprising:

a pole portion;

an umbrella portion hingedly coupled to the pole portion, the umbrella portion having a plurality of radially extending rib members;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus;

a solar energy system coupled to the pole portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system;

a lighting system having a plurality of light emitting diodes conductively coupled to the rechargeable electrical power system, the light emitting diodes being recessed within the rib members; and

translucent materials disposed over the light emitting diodes for enhancing the light from the light emitting diodes.

77. The umbrella apparatus according to claim 76, wherein the translucent materials are smooth.

78. The umbrella apparatus according to claim 76, wherein the translucent materials are textured.

79. The umbrella apparatus according to claim 76, wherein the translucent materials extend beyond the exterior surfaces of the rib members.

80. The umbrella apparatus according to claim 76, further comprising:  
conductors carried within the rib members for conductively coupling the light emitting diodes to the rechargeable electrical power system.

81. The umbrella apparatus according to claim 76, wherein the solar energy system is releasably coupled to the rechargeable electrical power system.

82. The umbrella apparatus according to claim 76, further comprising:  
a top cap for hingedly connecting the umbrella portion to the pole portion;  
wherein the rechargeable electrical power system is releasably coupled to the top cap.

83. The umbrella apparatus according to claim 76, wherein the solar energy system and the rechargeable electrical power system are disposed in separate housings.

84. The umbrella apparatus according to claim 76, wherein the rechargeable electrical power system comprises:

at least one rechargeable battery disposed in a housing that surrounds the pole portion.

85. The umbrella apparatus according to claim 84, further comprising:

a power system charger conductively coupled to the at least one rechargeable battery;

a detachable transformer for converting AC electrical power to DC electrical power, the transformer being releasably coupled to the power system charger, thereby allowing the power system charger to use AC power to recharge the at least one rechargeable battery when the transformer is conductively coupled to the power system charger.

86. An umbrella apparatus comprising:

a pole portion;

a top cap coupled to the pole portion;

a plurality of rib members hingedly coupled to the top cap;

a flexible canopy carried by the rib members;

at least one rechargeable battery for providing electrical power to the umbrella apparatus, the at least one rechargeable battery being located below the flexible canopy;

a solar energy system adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the at least one rechargeable battery, such that the solar energy collected and converted into electrical energy recharges the at least one rechargeable battery, the solar energy system being releasably coupled to the top cap, such that the flexible canopy passes between the top cap and the solar energy system, the flexible canopy being adjacent to both the top cap and the solar energy system; and

a lighting system carried by the rib members, the lighting system having a plurality of light emitting diodes conductively coupled to the at least one rechargeable battery.

87. The umbrella apparatus according to claim 86, further comprising:

wiring passing through an interior portion of the pole portion for conductively coupling the light emitting diodes to the at least one rechargeable battery.

88. The umbrella apparatus according to claim 86, wherein the solar energy system is releasably coupled to the top cap via a threaded connection.

89. The umbrella apparatus according to claim 86, wherein the light emitting diodes are located in recessed channels in the rib members.

90. The umbrella apparatus according to claim 86, further comprising:



a wireless receiver and transmitter pair for generating a wireless command signal for changing the operating state of the lighting system.

91. The umbrella apparatus according to claim 90, wherein the wireless command signal switches the lighting system on and off.

92. The umbrella apparatus according to claim 90, wherein the wireless command signal switches the lighting system between varying levels of light output.

**Evidence Appendix**  
**(37 C.F.R. § 41.37(c)(1)(ix))**

[None]

**Related Proceedings Appendix**

**(37 C.F.R. § 41.37(c)(1)(x))**

[None]